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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters,   **prosecution as to the merits is closed** in accordance with the practice under   *Ex parte Quayle*,35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _____3____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-20* _____ is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-20* _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). ____*2, 3*__

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka

(5511156).

Regarding claims 1, 7: Nagasaka teaches a network system (column 6 line 35-38)

composed of a plurality of computers, (column 6 line 35-38) comprising: a plurality of print data

expanders (rasterizer 212, column 7 line 5-15) each implemented in a computer, for expanding

print data to bit-map data; (picture element, column 7 line 10, column 13 line 5); a page divider

(216 of column 6 line 59-67, column 22 line 40-45) for dividing the print data for each page into

a plurality of bands; (graphic area, column 24 table 3, fig. 27); a band transfer controller (210,

column 6 line 65-67, column 7 line 1-5)for transferring a sequentially selected (see the group are

arranged in a sequence of 1, 2, 3, . . . , N to be selected by client process 210, column 24, line

10-25, and table 3) one of the bands to an available (usable, column 7 line 51) one of at least two

print data expanders (212 of other computers of column 7 line 1-10) each implemented in a

computer; a combiner (220 of column 7 line 24-27) for combining bit-map band data expanded

by the at least two print data expanders to produce the bit-map data corresponding to the print data.

Regarding claims 2, 8: Nagasaka teaches that the band transfer controller selects one from the bands in sequence of the at least two print data expanders by checking a process status (column 7 line 50-60, fig. 7) of each of the at least two print data expanders, and then transfers a selected band to a selected print data expander.

Regarding claims 3, 4, 9, 10: Nagasaka teaches that each of the at least two print data expanders expands a received band to bit-map band data, (picture element, column 7 line 10, column 13 line 5) sets a process status of a print data expander unavailable (error code, column 8 line 63-64, fig. 7) while expanding the received band, and resets the process status to available when the received band has been expanded. (Normal end code, column 8 line 63, fig. 7)

Regarding claims 5, 11: Nagasaka teaches that page divider divides the print data for each page into the bands which are numbered from top of a page in sequence. (Fig. 27, graphic form group, table 3 of column 24 teaches to number the groups in the sequence of 1, 2, . . ., N)

Regarding claims 6, 12: Nagasaka teaches that the combiner (220 of column 7 line 24-27) receives the bit-map band data from the at least two print data expanders, determines whether the bit-map band data are received in original sequence of the bands, (see 220 arrange and the received print element groups according to table 3, column 24 line 10-25, and check conversion status of column 25 line 5-20) rearranges (column 25 line 1-5) the bit-map band data in the original sequence when a sequence of the bit-map band data is not identical to the original

sequence, (one group is converted before the other, column 25 line 5-20) and reproducing (synthesize, column 7 line 25) the bit-map data corresponding to the print data.

Regarding claim 13: Nagasaka teaches a print data control method for a network system (column 6 line 35-38) composed of a print server computer (the computer that received a printing request form a client computer, column 6, line 65-67, column 7 line 1-5) a plurality of client computers, (the computers that generate the printing request. Column 4 line 1-25 teaches that any of the computers on the network generate a printing request) comprising the steps of: dividing print data into a plurality of sequential bands; (column 6 line 59-65, the groups are divided and arranged in a sequence of 1, 2, 3, . . . , N, fig. 27, and table 3 column 24); distributing the sequential bands over the print server computer and at least one client computer (column 6 line 66-67, column 7 line 1-5) to expand the sequential bands to bit-map (picture element of column 7 line 9-10, column 13 line 5) band data in parallel (column 6 line 27-29) among the print server computer and at least one client computer; and combining (column 7 line 24-27) the bit-map band data to produce the bit-map data corresponding to the print data.

Regarding claim 14: Nagasaka teaches that at a client computer: selecting one from the sequential bands in sequence; (see the respective portion of the divided code, (group) are selected to be transmitted to a respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3); selecting one of the print server computer and the client computer by checking process statuses thereof; (see column 7 line 54-60, fig. 7) transferring selected band to a selected computer; (the respective portion of the divided code, (group) are selected to be transmitted to a

respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3); expanding a

received band to bit-map band data; (column 7 line 9-10); and setting a client process status of

its own to unavailable (error code, column 8 line 63-64, fig. 7) while expanding the received

band and resetting the client process status to available when the received band has been

expanded, (normal end code, column 8 line 63, fig. 7), and at the print server computer:

expanding a received band to bit-map band data; (column 7 line 9-10) and setting a server

process status of its own to unavailable (error code, column 8 line 63, fig. 7) while expanding the

received band and resetting the server process status to available when the received band has

been expanded. (Normal end code, column 8 line 63, fig. 7)

Note: In Nagasaka, the above process is performed by all the computers connected to the

network. (Column 7 line 47-51, column 4 line 39 and column 6 line 25-29)

Regarding claim 15: Nagasaka teaches that the combiner (220 of column 7 line 24-27)

receives the bit-map band data from the at least two print data expanders, determines whether the

bit-map band data are received in original sequence of the bands, (see 220 arrange and the

received print element groups according to table 3, column 24 line 10-25, and check conversion

status of column 25 line 5-20) rearranges (column 25 line 1-5) the bit-map band data in the

original sequence when a sequence of the bit-map band data is not identical to the original

sequence, (one group is converted before the other, column 25 line 5-20) and reproducing

(synthesize, column 7 line 25) the bit-map data corresponding to the print data.

Regarding claim 16: Nagasaka teaches a print data control method for a network

system(column 6 line 35-38) composed of a plurality of computers, (column 6 line 35-

38)comprising the steps of: dividing print data into a plurality of sequential bands; (column 6 line

59-65, the groups are divided and arranged in a sequence of 1, 2, 3, . . . , N, fig. 27, and table 3

column 24); distributing (column 6 line 66-67, column 7 line 1-5) the sequential bands over

available computers (usable processor, column 7 line 50-53) to expand the sequential bands to

bit-map band data (picture element, column 7 line 10, column 13 line 5) in parallel (column 7

line 9-11, column 7 line 48) among the available computers; and combining (column 7 line 24-

27) the bit-map band data to produce the bit-map data corresponding to the print data.

Regarding claim 17: Nagasaka teaches at a first computer, (the computer that generates a

print request, column 6 line 65-67) selecting one from the sequential bands in sequence; (see the

respective portion of the divided code, (group) are selected to be transmitted to a respective

interpreter of a computer, column 6 line 65-67, column 7 line 1-3); selecting one of the

computers by checking process statues thereof; (column 7 line 54-60, fig. 7) transferring a

selected band to a selected computer; (respective portion of the divided code, (group) are

transmitted to a respective interpreter of a computer, column 6 line 65-67, column 7 line 1-3)

expanding a received band to bit-map band data; (picture element, column 7 line 9-10) and

setting a first process status to unavailable (error code, column 8 line 63-64, fig. 7) while

expanding the received band and resetting the first process status to available when the received

band has been expanded, (Normal end code, column 8 line 63, fig. 7); and at each of the

computers (computer b, c) other than the first computer, expanding a received band to bit-map

band data; (picture element, column 7 line 9-10) and setting a server process status of its own to

unavailable (error code, column 8 line 63-64, fig. 7) while expanding the received band and

resetting the server process status to available (Normal end code, column 8 line 63, fig. 7); when

the received band has been expanded.

Note: In Nagasaka, the above process is performed by all the computers connected to the

network. (Column 7 line 47-51, column 4 line 39, and column 6 line 25-29)

Regarding claim 18: Nagasaka teaches that the first computer further combines the

bit-map band data to produce the bit--map data corresponding to the print data. (Column 7 line

24-27)

Regarding claim 19: Nagasaka teaches that the combiner (220 of column 7 line 24-27)

receives the bit-map band data from the at least two print data expanders, determines whether the

bit-map band data are received in original sequence of the bands, (see 220 arrange and the

received print element groups according to table 3, column 24 line 10-25, and check conversion

status of column 25 line 5-20) rearranges (column 25 line 1-5) the bit-map band data in the

original sequence when a sequence of the bit-map band data is not identical to the original

sequence, (one group is converted before the other, column 25 line 5-20) and reproducing

(synthesize, column 7 line 25) the bit-map data corresponding to the print data.

Regarding claim 20: Nagasaka teaches a storage (computer 6, fig. 31) storing a print data control program (operating system 4, column 5 line 45-50, fig. 31) for controlling the method of claim 1.

Conclusion

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892 or to Supervisor Mr. David Moore whose phone number is (703) 308-7452.

April 4, 2001

DAVID MOORE
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